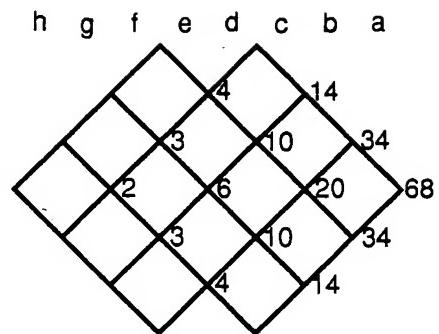
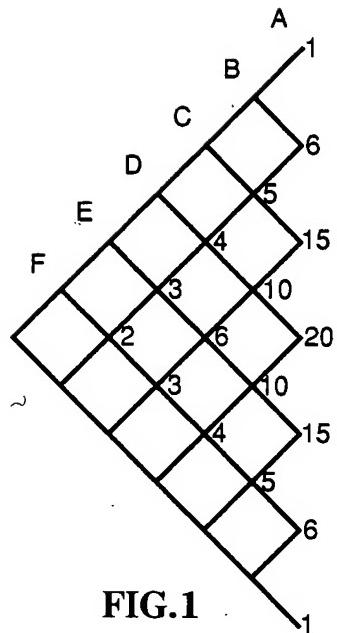


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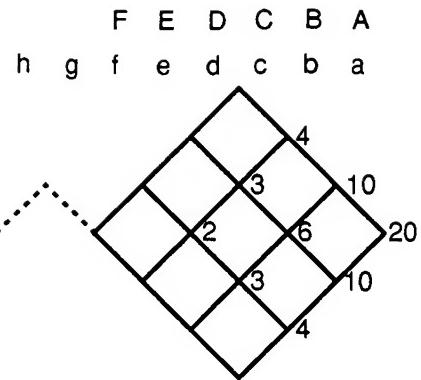


FIG.3

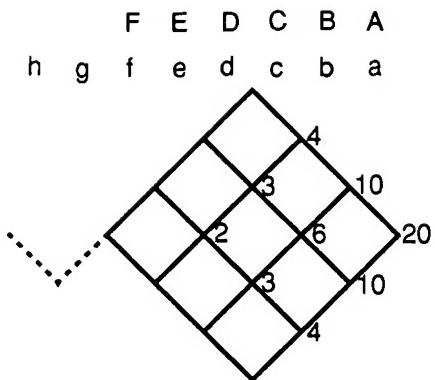


FIG.4

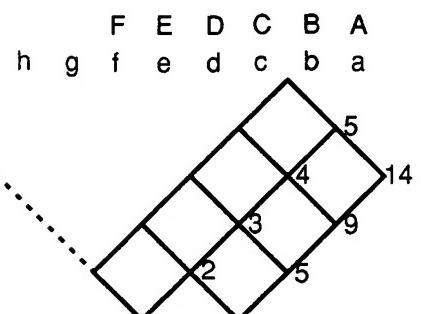


FIG.5

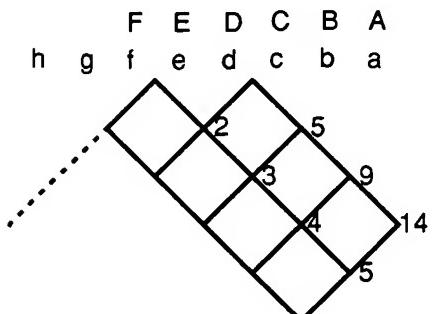


FIG.6

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**48 Encoded Vectors with no Changes**

FIG. 3		FIG. 5		FIG. 6	
Name	hgfedcba	Name	hgfedcba	Name	hgfedcba
D207	10000111	D027	00010111	D303	11000011
D213	10001011	D033	00011011	D305	11000101
D215	10001101	D035	00011101	D306	11000110
D216	10001110	D036	00011110	D311	11001001
D223	10010011	D047	00100111	D312	11001010
D225	10010101	D053	00101011	D314	11001100
D226	10010110	D055	00101101	D321	11010001
D231	10011001	D056	00101110	D322	11010010
D232	10011010	D063	00110011	D324	11010100
D234	10011100	D065	00110101	D330	11011000
D243	10100011	D066	00110110	D341	11100001
D245	10100101	D071	00111001	D342	11100010
D246	10100110	D072	00111010	D344	11100100
D251	10101001	D074	00111100	D350	11101000
D252	10101010				
D254	10101100				
D261	10110001				
D262	10110010				
D264	10110100				
D270	10111000				

**FIG. 7**

**a-bit Encoding**

Name	K FEDCBA	Coding Label	a	Name	K FEDCBA	Coding Label	a
D00	x 000000	$\bar{A}' \cdot B' \cdot C' \cdot D' \cdot E' \cdot F'$	1	D77	x 111111	$\bar{A} \cdot B \cdot C \cdot D \cdot E \cdot F$	0
D04	x 000100	$\bar{A}' \cdot B' \cdot E' \cdot F' \cdot C \neq D$	1	D73	x 111011	$\bar{A} \cdot B \cdot E \cdot F \cdot C \neq D$	0
D10	x 001000	$\bar{A}' \cdot B' \cdot E' \cdot F' \cdot C \neq D$	1	D67	x 110111	$\bar{A} \cdot B \cdot E \cdot F \cdot C \neq D$	0
D20	x 010000	$\bar{A}' \cdot B' \cdot C' \cdot D' \cdot E \neq F$	1	D57	x 101111	$\bar{A} \cdot B \cdot C \cdot D \cdot E \neq F$	0
D40	x 100000	$\bar{A}' \cdot B' \cdot C' \cdot D' \cdot E \neq F$	1	D37	x 011111	$\bar{A} \cdot B \cdot C \cdot D \cdot E \neq F$	0

**FIG. 10A**

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**20 Encoded Vectors of FIG. 4 with individual Bit Changes**

Name	K FEDCBA	Name	hgfedcba	Name	K FEDCBA	Name	hgfedcba
D00	0 0 0 0 0 0 0	D131	0 1 0 <u>1</u> 0 0 1	D77	0 1 1 1 1 1 1	D146	0 1 1 <u>0</u> 1 1 0
D01	0 0 0 0 0 0 1	D161	0 1 1 1 0 0 0 1	D76	0 1 1 1 1 1 0	D116	0 1 <u>0</u> 1 1 1 0
D02	0 0 0 0 0 1 0	D162	0 1 1 1 0 0 1 0	D75	0 1 1 1 1 0 1	D115	0 1 <u>0</u> 1 1 1 0 1
D04	0 0 0 0 1 0 0	D145	0 1 1 0 0 1 0 1	D73	0 1 1 1 0 1 1	D132	0 1 <u>0</u> 1 1 0 1 0
D10	0 0 0 1 0 0 0	D151	0 1 1 0 1 0 0 1	D67	0 1 1 0 1 1 1	D126	0 1 <u>0</u> 1 0 1 1 0
D20	0 0 1 0 0 0 0	D123	0 1 0 1 0 0 <u>1</u> 1	D57	0 1 0 1 1 1 1	D154	0 1 1 0 1 1 <u>0</u> 0
D40	0 1 0 0 0 0 0	D143	0 1 1 0 0 0 <u>1</u> 1	D37	0 0 1 1 1 1 1	D134	0 1 0 1 1 1 <u>0</u> 0
D60	0 1 1 0 0 0 0	D164	0 1 1 1 0 1 0 0	D17	0 0 0 1 1 1 1	D113	0 1 0 0 1 0 1 1
K07	1 0 0 0 1 1 1	K107	0 1 0 0 0 1 1 1	K70	1 1 1 1 0 0 0	K170	0 1 1 1 1 0 0 0
K25	1 0 1 0 1 0 1	K125	0 1 0 1 0 1 0 1	K52	1 1 0 1 0 1 0	K152	0 1 1 0 1 0 1 0

**FIG. 8**

**b-bit Encoding**

Name	K FEDCBA	Coding Label	b	Name	K FEDCBA	Coding Label	b
D20	x 010000	A'•B'•C'•D'•E≠F	1	D57	x 101111	A•B'•C•D•E≠F	0
D40	x 100000	A'•B'•C'•D'•E≠F	1	D37	x 011111	A•B'•C•D•E≠F	0

**FIG. 10B**

**c-bit Encoding**

Name	K FEDCBA	Coding Label	c	Name	K FEDCBA	Coding Label	c
D60	x 110000	A'•B'•D'•E•F	1	D17	x 001111	A•B•D•E'•F'	0

**FIG. 10C**

**d-bit Encoding**

Name	K FEDCBA	Coding Label	d	Name	K FEDCBA	Coding Label	d
D00	x 000000	A'•B'•C'•D'•E'•F'	1	D77	x 111111	A•B•C•D•E•F	0

**FIG. 10D**

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6B/8B Code

Name	K FEDCBA	Name	hgfedcba	Name	K FEDCBA	Name	hgfedcba
D00	0 0 0 0 0 0 0	D131	0 1 0 <u>1</u> 1 0 0 1	D42	0 1 0 0 0 1 0	D342	1 1 1 0 0 0 1 0
D01	0 0 0 0 0 0 1	D161	0 1 <u>1</u> 1 0 0 0 1	D43	0 1 0 0 0 1 1	D243	1 0 1 0 0 0 1 1
D02	0 0 0 0 0 1 0	D162	0 1 <u>1</u> 1 0 0 1 0	D44	0 1 0 0 1 0 0	D344	1 1 1 0 0 1 0 0
D03	0 0 0 0 0 1 1	D303	1 1 0 0 0 0 1 1	D45	0 1 0 0 1 0 1	D245	1 0 1 0 0 1 0 1
D04	0 0 0 0 1 0 0	D145	0 1 <u>1</u> 0 0 1 0 1	D46	0 1 0 0 1 1 0	D246	1 0 1 0 0 1 1 0
D05	0 0 0 0 1 0 1	D305	1 1 0 0 0 1 0 1	D47	0 1 0 0 1 1 1	D047	0 0 1 0 0 1 1 1
D06	0 0 0 0 1 1 0	D306	1 1 0 0 0 1 1 0	D50	0 1 0 1 0 0 0	D350	1 1 1 0 1 0 0 0
D07	0 0 0 0 1 1 1	D207	1 0 0 0 0 1 1 1	D51	0 1 0 1 0 0 1	D251	1 0 1 0 1 0 0 1
D10	0 0 0 1 0 0 0	D151	0 1 <u>1</u> 0 1 0 0 1	D52	0 1 0 1 0 1 0	D252	1 0 1 0 1 0 1 0
D11	0 0 0 1 0 0 1	D311	1 1 0 0 1 0 0 1	D53	0 1 0 1 0 1 1	D053	0 0 1 0 1 0 1 1
D12	0 0 0 1 0 1 0	D312	1 1 0 0 1 0 1 0	D54	0 1 0 1 1 0 0	D254	1 0 1 0 1 1 0 0
D13	0 0 0 1 0 1 1	D213	1 0 0 0 1 0 1 1	D55	0 1 0 1 1 0 1	D055	0 0 1 0 1 1 0 1
D14	0 0 0 1 1 0 0	D314	1 1 0 0 1 1 0 0	D56	0 1 0 1 1 1 0	D056	0 0 1 0 1 1 1 0
D15	0 0 0 1 1 0 1	D215	1 0 0 0 1 1 0 1	D57	0 1 0 1 1 1 1	D154	0 1 1 0 1 1 <u>0</u>
D16	0 0 0 1 1 1 0	D216	1 0 0 0 1 1 1 0	D60	0 1 1 0 0 0 0	D164	0 1 1 1 0 <u>1</u> 0 0
D17	0 0 0 1 1 1 1	D113	0 1 0 0 1 <u>0</u> 1 1	D61	0 1 1 0 0 0 1	D261	1 0 1 1 0 0 0 1
D20	0 0 1 0 0 0 0	D123	0 1 0 1 0 0 <u>1</u> 1	D62	0 1 1 0 0 1 0	D262	1 0 1 1 0 0 1 0
D21	0 0 1 0 0 0 1	D321	1 1 0 1 0 0 0 1	D63	0 1 1 0 0 1 1	D063	0 0 1 1 0 0 1 1
D22	0 0 1 0 0 1 0	D322	1 1 0 1 0 0 1 0	D64	0 1 1 0 1 0 0	D264	1 0 1 1 0 1 0 0
D23	0 0 1 0 0 1 1	D223	1 0 0 1 0 0 1 1	D65	0 1 1 0 1 0 1	D065	0 0 1 1 0 1 0 1
D24	0 0 1 0 1 0 0	D324	1 1 0 1 0 1 0 0	D66	0 1 1 0 1 1 0	D066	0 0 1 1 0 1 1 0
D25	0 0 1 0 1 0 1	D225	1 0 0 1 0 1 0 1	D67	0 1 1 0 1 1 1	D126	0 1 <u>0</u> 1 0 1 1 0
D26	0 0 1 0 1 1 0	D226	1 0 0 1 0 1 1 0	D70	0 1 1 1 0 0 0	D270	1 0 1 1 1 0 0 0
D27	0 0 1 0 1 1 1	D027	0 0 0 1 0 1 1 1	D71	0 1 1 1 0 0 1	D071	0 0 1 1 1 0 0 1
D30	0 0 1 1 0 0 0	D330	1 1 0 1 1 0 0 0	D72	0 1 1 1 0 1 0	D072	0 0 1 1 1 0 1 0
D31	0 0 1 1 0 0 1	D231	1 0 0 1 1 0 0 1	D73	0 1 1 1 0 1 1	D132	0 1 <u>0</u> 1 1 0 1 0
D32	0 0 1 1 0 1 0	D232	1 0 0 1 1 0 1 0	D74	0 1 1 1 1 0 0	D074	0 0 1 1 1 1 0 0
D33	0 0 1 1 0 1 1	D033	0 0 0 1 1 0 1 1	D75	0 1 1 1 1 0 1	D115	0 1 <u>0</u> 1 1 0 1 1
D34	0 0 1 1 1 0 0	D234	1 0 0 1 1 1 0 0	D76	0 1 1 1 1 1 0	D116	0 1 <u>0</u> 1 1 1 1 0
D35	0 0 1 1 1 0 1	D035	0 0 0 1 1 1 0 1	D77	0 1 1 1 1 1 1	D146	0 1 1 <u>0</u> 1 1 1 0
D36	0 0 1 1 1 1 0	D036	0 0 0 1 1 1 1 0	K07	1 0 0 0 1 1 1	K107	0 1 0 0 0 1 1 1
D37	0 0 1 1 1 1 1	D134	0 1 0 1 1 1 <u>0</u> 0	K25	1 0 1 0 1 0 1	K125	0 1 0 1 0 1 0 1
D40	0 1 0 0 0 0 0	D143	0 1 1 0 0 0 <u>1</u> 1	K52	1 1 0 1 0 1 0	K152	0 1 1 0 1 0 1 0
D41	0 1 0 0 0 0 1	D341	1 1 1 0 0 0 0 1	K70	1 1 1 1 0 0 0	K170	0 1 1 1 1 0 0 0

FIG. 9

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e-bit Encoding

Name	K FEDCBA	Coding Label	e	Name	K FEDCBA	Coding Label	e
D00	x 000000	A'•B'•C'•D'•E'•F'	1	D77	x 111111	A•B•C•D•E•F	0
D01	x 000001	C'•D'•E'•F'•A≠B	1	D76	x 111110	C•D•E•F•A≠B	0
D02	x 000010	C'•D'•E'•F'•A≠B	1	D75	x 111101	C•D•E•F•A≠B	0

FIG. 10E

f-bit Encoding

Name	K FEDCBA	Coding Label	f	Name	K FEDCBA	Coding Label	f
D01	x 000001	C'•D'•E'•F'•A≠B	1	D76	x 111110	C•D•E•F•A≠B	0
D02	x 000010	C'•D'•E'•F'•A≠B	1	D75	x 111101	C•D•E•F•A≠B	0
D04	x 000100	A'•B'•E'•F'•C≠D	1	D73	x 111011	A•B•E•F•C≠D	0
D10	x 001000	A'•B'•E'•F'•C≠D	1	D67	x 110111	A•B•E•F•C≠D	0

FIG. 10F

A-bit Decoding

Name	hgfedcba	Coding Label	AK	Name	hgfedcba	Coding Label	AK
D131	01011001	a•b'•c'•d•e•f'•g•h	00	D146	01100110	a'•b•c•d'•e'•f•g•h	10
D145	01100101	a•b'•e'•f•g•h'•c≠d	00	D132	01011010	a'•b•e•f'•g•h'•c≠d	10
D151	01101001	a•b'•e'•f•g•h'•c≠d	00	D126	01010110	a'•b•e•f'•g•h'•c≠d	10
D123	01010011	a•b•c'•d'•g•h'•e≠f	00	D154	01101100	a'•b'•c•d•g•h'•e≠f	10
D143	01100011	a•b•c'•d'•g•h'•e≠f	00	D134	01011100	a'•b'•c•d•g•h'•e≠f	10

FIG. 12A

B-bit Decoding

Name	hgfedcba	Coding Label	BK	Name	hgfedcba	Coding Label	BK
D123	01010011	a•b'•c'•d'•g•h'•e≠f	00	D154	01101100	a'•b'•c•d•g•h'•e≠f	10
D143	01100011	a•b'•c'•d'•g•h'•e≠f	00	D134	01011100	a'•b'•c•d•g•h'•e≠f	10

FIG. 12B

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**g-bit Encoding**

Name	K FEDCBA	Coding Label	g	Name	K FEDCBA	Coding Label	g
D00	x 000000	A'•B'•C'•(D'+E'+F')	1	*D00	x 000000	(A'+B'+C')•D'•E'•F'	1
D10	x 001000	A'•B'•C'•(D'+E'+F')	1	D01	x 000001	(A'+B'+C')•D'•E'•F'	1
D20	x 010000	A'•B'•C'•(D'+E'+F')	1	D02	x 000010	(A'+B'+C')•D'•E'•F'	1
D30	x 011000	A'•B'•C'•(D'+E'+F')	1	D03	x 000011	(A'+B'+C')•D'•E'•F'	1
D40	x 100000	A'•B'•C'•(D'+E'+F')	1	D04	x 000100	(A'+B'+C')•D'•E'•F'	1
D50	x 101000	A'•B'•C'•(D'+E'+F')	1	D05	x 000101	(A'+B'+C')•D'•E'•F'	1
D60	x 110000	A'•B'•C'•(D'+E'+F')	1	D06	x 000110	(A'+B'+C')•D'•E'•F'	1
D11	x 001001	(A'•B'+A'•C'+B'•C')•E'•F'	1	D17	x 001111	A•B•C•D	1
D12	x 001010	(A'•B'+A'•C'+B'•C')•E'•F'	1	D37	x 011111	A•B•C•D	1
D14	x 001100	(A'•B'+A'•C'+B'•C')•E'•F'	1	D57	x 101111	A•B•C•D	1
D21	x 010001	(A'•B'+A'•C'+B'•C')•D'•F'	1	D77	x 111111	A•B•C•D	1
D22	x 010010	(A'•B'+A'•C'+B'•C')•D'•F'	1	D75	x 111101	C•D•E•F•A≠B	1
D24	x 010100	(A'•B'+A'•C'+B'•C')•D'•F'	1	D76	x 111110	C•D•E•F•A≠B	1
D41	x 100001	(A'•B'+A'•C'+B'•C')•D'•E'	1	D67	x 110111	A•B•E•F•C≠D	1
D42	x 100010	(A'•B'+A'•C'+B'•C')•D'•E'	1	D73	x 111011	A•B•E•F•C≠D	1
D44	x 100100	(A'•B'+A'•C'+B'•C')•D'•E'	1	K07	1 000111	K	1
*D00	x 000000		1	K25	1 010101	K	1
*D01	x 000001		1	K52	1 101010	K	1
*D02	x 000010		1	K70	1 111000	K	1
*D04	x 000100		1				
*D10	x 001000		1				
*D20	x 010000		1				
*D40	x 100000		1				

**FIG. 10G**

**C-bit Decoding**

Name	hgfedcba	Coding Label	CK	Name	hgfedcba	Coding Label	CK
D164	01110100	a'•b'•d'•e•f•g•h'	00	D113	01001011	a•b•d•e'•f'•g•h'	10

**FIG. 12C**

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**h-bit Encoding**

Name	K FEDCBA	Coding Label	h	Name	K FEDCBA	Coding Label	h
D17	x 001111	A•B•C•(D+E+F)	0	D71	x 111001	(A+B+C)•D•E•F	0
D27	x 010111	A•B•C•(D+E+F)	0	D72	x 111010	(A+B+C)•D•E•F	0
D37	x 011111	A•B•C•(D+E+F)	0	D73	x 111011	(A+B+C)•D•E•F	0
D47	x 100111	A•B•C•(D+E+F)	0	D74	x 111100	(A+B+C)•D•E•F	0
D57	x 101111	A•B•C•(D+E+F)	0	D75	x 111101	(A+B+C)•D•E•F	0
D67	x 110111	A•B•C•(D+E+F)	0	D76	x 111110	(A+B+C)•D•E•F	0
D77	x 111111	A•B•C•(D+E+F)	0	*D77	x 111111	(A+B+C)•D•E•F	0
D33	x 011011	(A•B+A•C+B•C)•D•E	0	D00	x 000000	A'•B'•C'•D'	0
D35	x 011101	(A•B+A•C+B•C)•D•E	0	D20	x 010000	A'•B'•C'•D'	0
D36	x 011110	(A•B+A•C+B•C)•D•E	0	D40	x 100000	A'•B'•C'•D'	0
D53	x 101011	(A•B+A•C+B•C)•D•F	0	D60	x 110000	A'•B'•C'•D'	0
D55	x 101101	(A•B+A•C+B•C)•D•F	0	D01	x 000001	C'•D'•E'•F'•A≠B	0
D56	x 101110	(A•B+A•C+B•C)•D•F	0	D02	x 000010	C'•D'•E'•F'•A≠B	0
D63	x 110011	(A•B+A•C+B•C)•E•F	0	D04	x 000100	A'•B'•E'•F'•C≠D	0
D65	x 110101	(A•B+A•C+B•C)•E•F	0	D10	x 001000	A'•B'•E'•F'•C≠D	0
D66	x 110110	(A•B+A•C+B•C)•E•F	0	K07	1 000111	K	0
*D37	x 011111		0	K25	1 010101	K	0
*D57	x 101111		0	K52	1 101010	K	0
*D67	x 110111		0	K70	1 111000	K	0
*D73	x 111011						
*D75	x 111101						
*D76	x 111110						
*D77	x 111111						

**FIG. 10H**

**D-bit Decoding**

Name	hgfedcba	Coding Label	DK	Name	hgfedcba	Coding Label	DK
D131	010111001	a•b'•c'•d•e•f'•g•h'00	00	D146	01100110	a'•b•c•d'•e'•f•g•h'10	10

**FIG. 12D**

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**E-bit Decoding**

Name	hgfedcba	Coding Label	EK	Name	hgfedcba	Coding Label	EK
D131	01011001	a•b'•c'•d• $\bar{e}$ •f'•g•h'	00	D146	01100110	a'•b•c•d'• $\bar{e}'$ •f•g•h'	10
D161	011110001	c'•d'• $\bar{e}$ •f•g•h'•a≠b	00	D116	01001110	c•d• $\bar{e}'$ •f'•g•h'•a≠b	10
D162	01110010	c'•d'• $\bar{e}$ •f•g•h'•a≠b	00	D115	01001101	c•d• $\bar{e}'$ •f'•g•h'•a≠b	10

**FIG. 12E**

**F-bit Decoding**

Name	hgfedcba	Coding Label	FK	Name	hgfedcba	Coding Label	FK
D161	011110001	c'•d'•e• $\bar{f}$ •g•h'•a≠b	00	D116	01001110	c•d•e'• $\bar{f}'$ •g•h'•a≠b	10
D162	011110010	c'•d'•e• $\bar{f}$ •g•h'•a≠b	00	D115	01001101	c•d•e'• $\bar{f}'$ •g•h'•a≠b	10
D145	01100101	a•b'•e'• $\bar{f}$ •g•h'•c≠d	00	D132	01011010	a'•b•e• $\bar{f}'$ •g•h'•c≠d	10
D151	01101001	a•b'•e'• $\bar{f}$ •g•h'•c≠d	00	D126	01010110	a'•b•e• $\bar{f}'$ •g•h'•c≠d	10

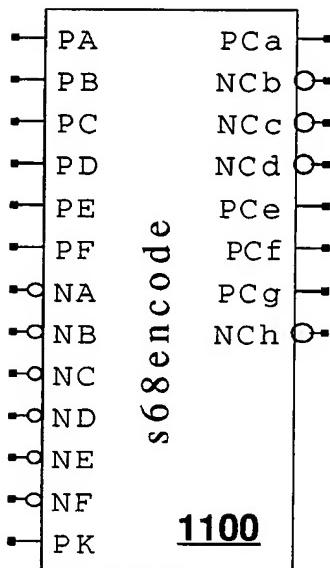
**FIG. 12F**

**K-bit Decoding**

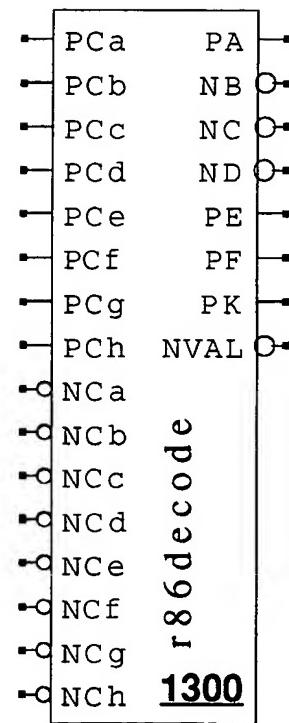
Name	hgfedcba	Coding Label	K	Name	hgfedcba	Coding Label	K
K107	01000111	a•c•d'•f•g•h'•b≠e	1	K170	01111000	a'•c'•d•f•g•h'•b≠e	1
K125	01010101	a•c•d'•f•g•h'•b≠e	1	K152	01101010	a'•c'•d•f•g•h'•b≠e	1

**FIG. 12G**

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**FIG. 11A**



**FIG. 13A**

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YOR920030631US1

1100

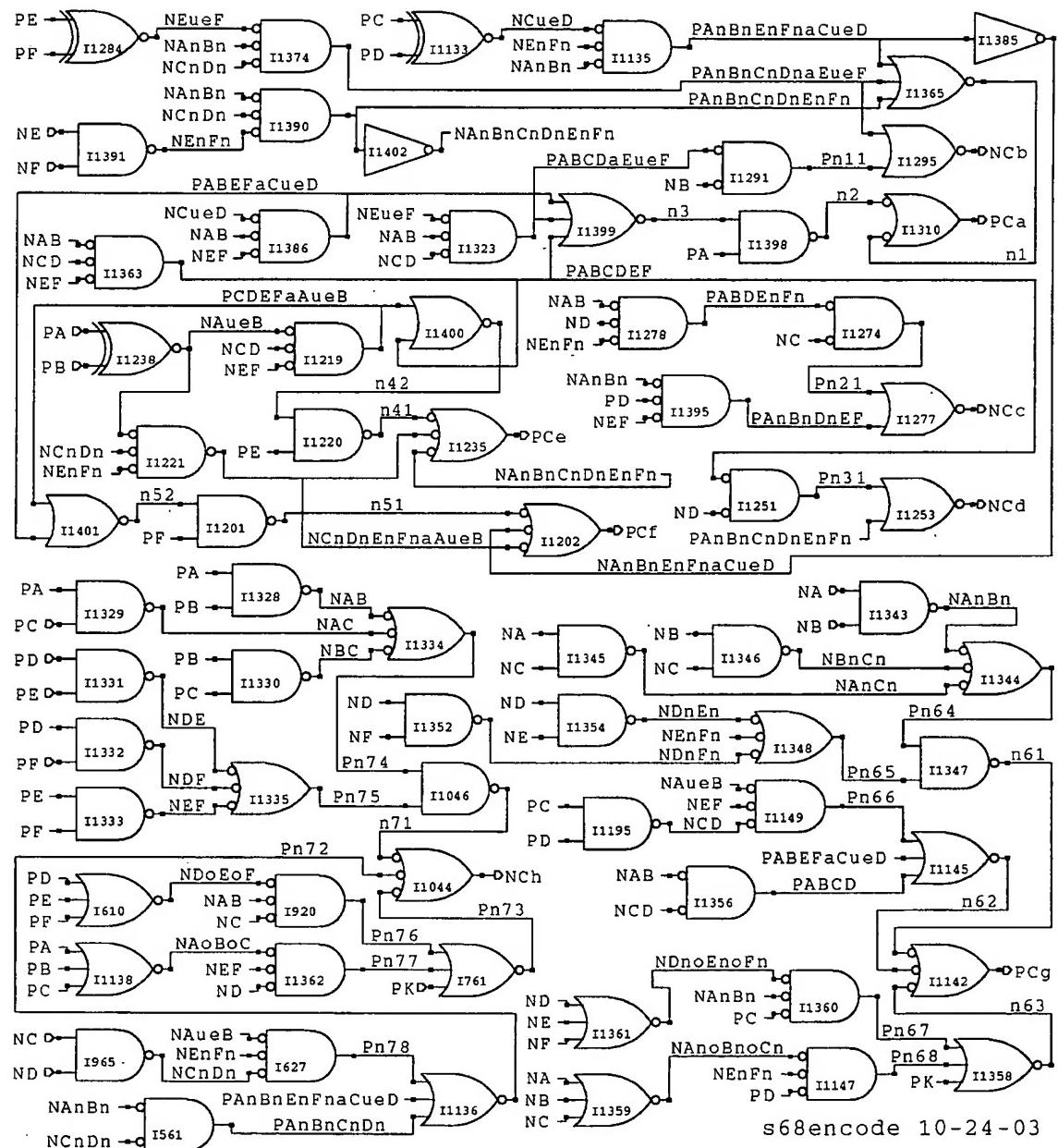


FIG. 11B

12/12

YOR920030631US1

1300

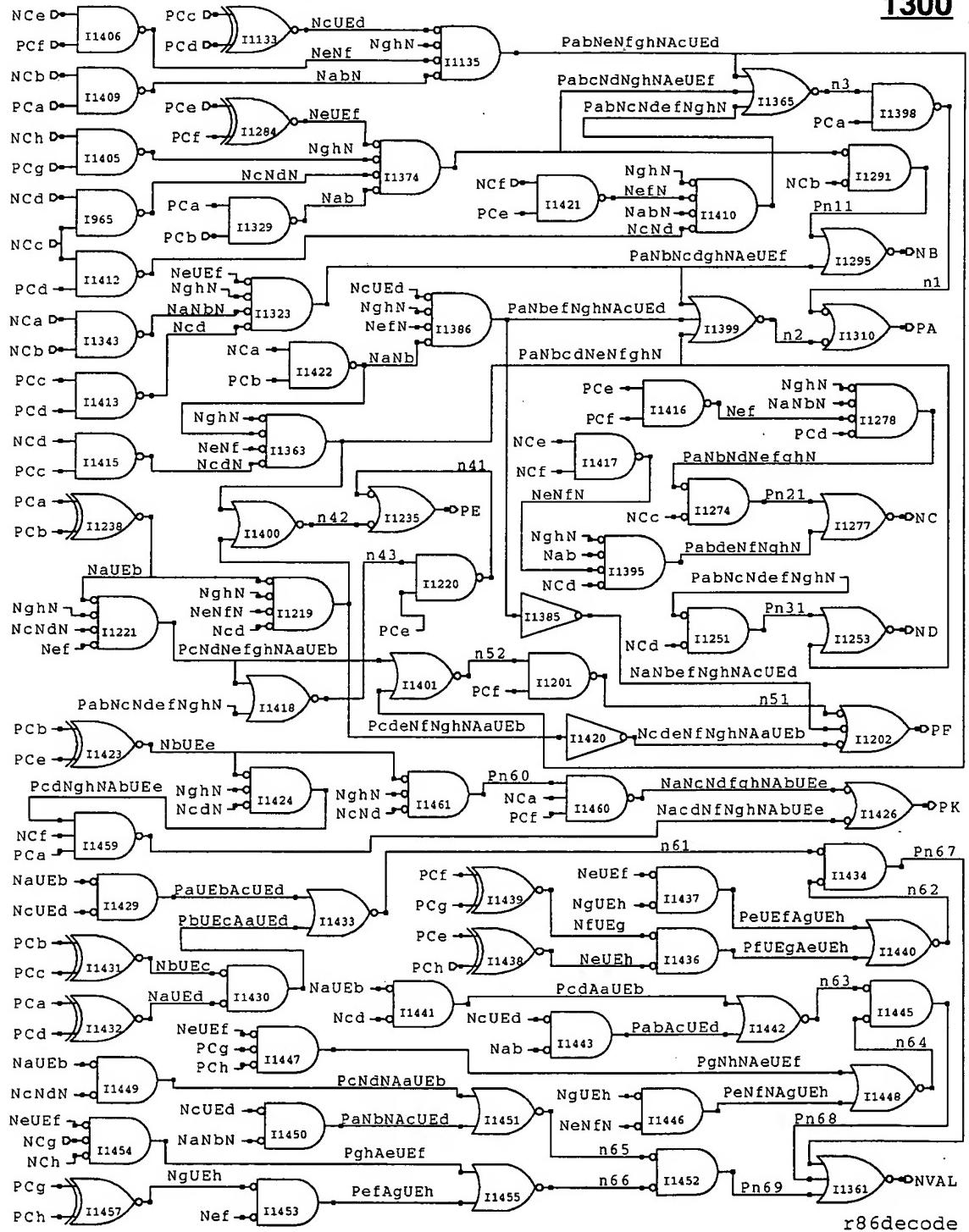


FIG. 13B